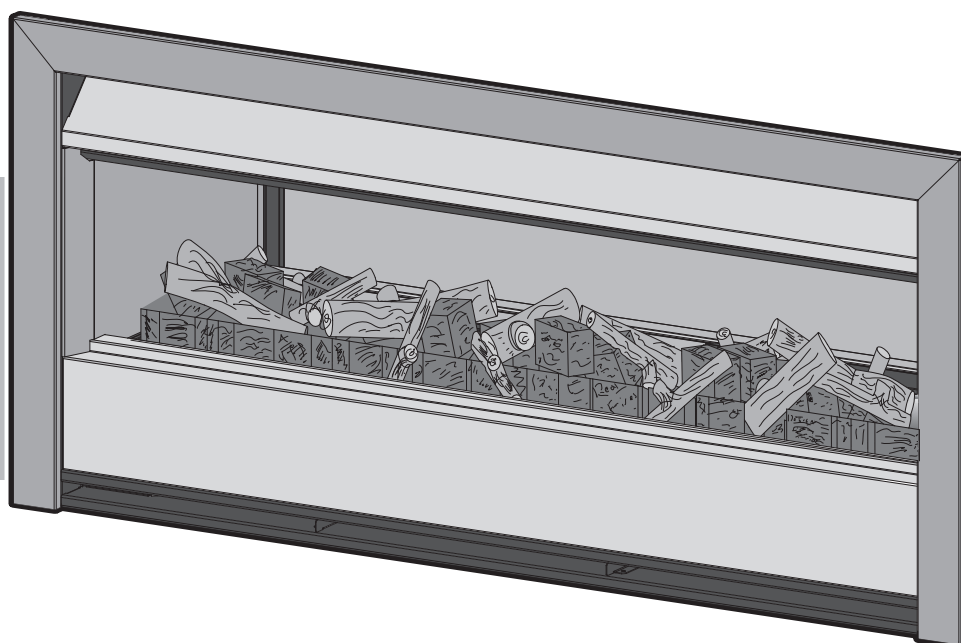


Rinnai

Operation & Installation Manual RF1200TW



This appliance shall be installed in accordance with:

- Manufacturer's Installation Instructions
- Current AS/NZS 5601 AS/NZS 3000
- Local Regulations and Municipal Building Codes including local OH&S requirements

This appliance must be installed, maintained and removed by an Authorised Person.

For continued safety of this appliance it must be installed and maintained in accordance with the manufacturers instructions.



N10378



The Australian
Gas Association
All Rinnai gas products
are A.G.A. certified.

Congratulations on the purchase of your RF1200TW Decorative Gas Log Effect appliance
We trust you will have many years of enjoyment from your purchase.

THIS MANUAL CONTAINS IMPORTANT INFORMATION. FOR SAFETY PLEASE READ
CAREFULLY BEFORE PROCEEDING WITH ASSEMBLY, INSTALLATION AND OPERATION
OF YOUR NEW FLAME FIRE AND GAIN A FULL UNDERSTANDING OF THE APPLIANCE.

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BEFORE YOU START

INSTALLATION REQUIREMENTS

This appliance **MUST BE** installed by an authorised person.

The installation **MUST** conform to local regulations.

The installation **MUST** also comply with the instructions supplied by Rinnai.

Service and removal **MUST BE** carried out by an authorised person.

CERTIFICATION

The Rinnai RF1200TW has been certified by the Australian Gas Association.

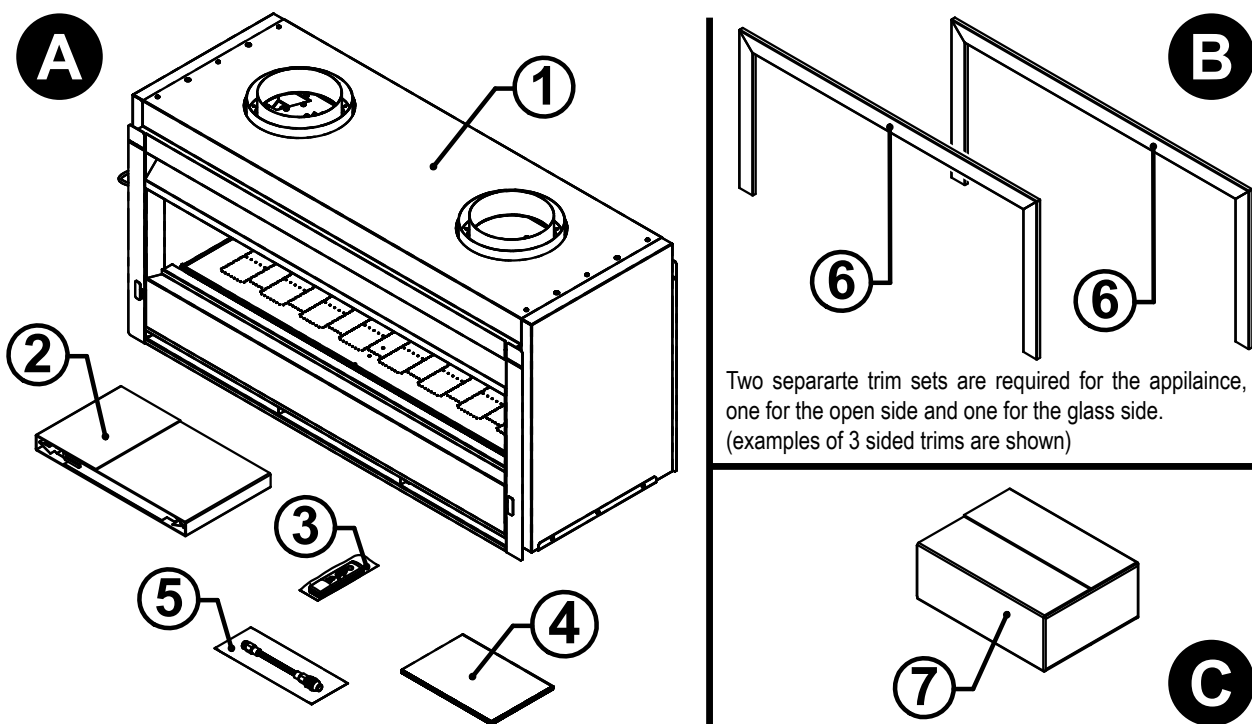
The Certification Number is shown on the appliance dataplate.

No parts or functions are to be modified or permanently removed from the heater.

Please keep these instructions in a safe place for future reference.

CARTON CONTENTS

The components for RF1200TW heater are supplied in separate cartons, the following table lists which components are in each carton. Ensure that the components listed for the installation method being installed are present before proceeding with the installation.



Item	Description	Carton		
		A	B	C
1	Rinnai RF1200TW gas fire engine	•		
2	Side reflector panels	•		
3	Remote control (batteries supplied)	•		
4	This operation and installation manual	•		
5	Gas connection kit: 200mm 3/8 Flexi tube with plug and 3/8" - 1/2" reducing flare connector	•		
6	Trim & hangers - 3 or 4 sided / Black or Stainless Steel (x2 - 1 trim required for each side)		•	
7	Burner media - Pebbles, Crystals or Logs, Coals and Granules *			•

* For details regarding Log, Coal and Granule quantities see "Logs, Coals and Granules" on page 23



DO NOT OPERATE THIS APPLIANCE WITHOUT READING AND UNDERSTANDING THESE INSTRUCTIONS.

Taking time to familiarise yourself with the appliance's features and operation will allow you to get the most out of your appliance for years to come.

Please keep these instructions for future reference. Failure to comply with these instructions could result in a fire or explosion, which could cause serious injury, death or property damage.

Improper installation, adjustments, service or maintenance can cause serious injury, death or property damage. Such work must be performed by authorised personnel.

The appliance must be installed in accordance with the local gas and electrical authority regulations.

Flue terminal must always vent directly to outdoors.

DO NOT extend the flue vertically or horizontally in ways other than prescribed in the appliance manufacturers' installation instructions.

For information on gas consumption, see data plate on the appliance.

This appliance must not be installed where curtains or other combustible materials could come into contact with it. In some cases curtains may need restraining.

When considering installation ensure minimum clearances as in the adjacent drawing are adhered to for both sides of the appliance:

Heat radiating from the front of this heater may over time affect the appearance of some materials used for flooring such as carpet, vinyl, cork or timber. This effect may be amplified if the air in the room contains contaminants like cooking vapours or cigarette smoke. To avoid this possibility, it is recommended that a mat or similar protective sheet be placed in front of the appliance, extending at least 750 mm in front of the appliance fascia.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

The appliance is not intended for use by young children or infirm persons without supervision.

Young Children must be supervised when in the vicinity of this heater while it is in operation.

For protection of young children or the infirm a secondary guard is required.

If the supply cord is damaged or requires replacing, it must be replaced by the manufacturer or the manufacturer's agent or similarly qualified person in order to avoid a hazard.

DO NOT connect to an LPG Gas cylinder indoors.

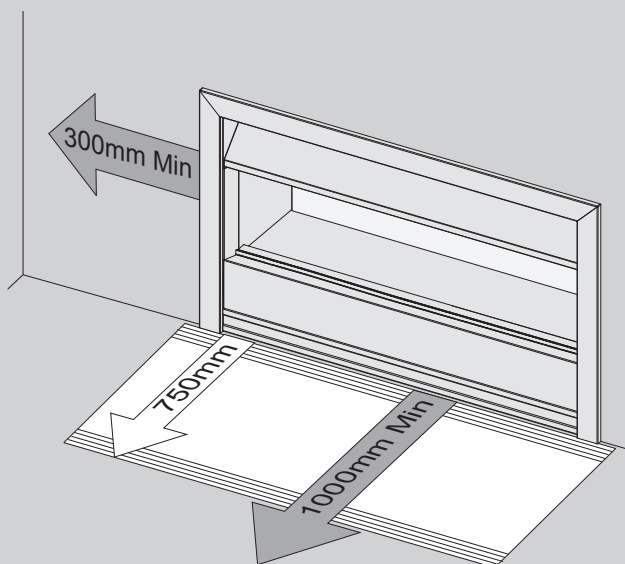
A dedicated 240 V earthed 10 Amp power point must be used with this appliance.

DO NOT modify this appliance. Modifying from original specifications may create a dangerous situation and will void your warranty.

ONLY THE FLUE COMPONENTS SPECIFIED BY RINNAI MUST BE USED.

Unpack the heater and check for damage. **DO NOT INSTALL A DAMAGED HEATER.** If the heater is damaged, contact your supplier for advice.

Before installing the heater, check the label for the correct gas type (refer rating plate, inside the appliance). Refer to local gas authority for confirmation of the gas type if you are in doubt.



SAFETY



DO NOT sit or lean against the heater.

DO NOT allow children or elderly persons to sleep in the warm air discharge from the heater.

DO NOT post or allow children to post articles into the louvres of the heater.

DO NOT cover or place articles on this heater.

DO NOT place articles in front of the louvres.

DO NOT operate / install this heater in areas where painting is taking place, or in places such as hairdressing salons, where there may be fluff and dust, and where aerosols are used.

DO NOT place articles on or against this appliance.

DO NOT use or store flammable materials near this appliance. Keep flammable materials away from heater.

Combustible materials **MUST NOT** be placed where the heater could ignite them.

DO NOT spray aerosols in the vicinity of this appliance while it is in operation. Most aerosols contain flammable substances which can be a hazard if used near this appliance when it is in use.

DO NOT use power boards or double adaptors to operate this appliance. The heater **MUST NOT** be located below a power socket-outlet.

DO NOT place containers of liquid on top of the heater. Water spillage can cause extensive damage to the appliance and create an electrocution hazard.

DO NOT CONNECT TO AN LPG GAS CYLINDER INDOORS.

Turn the heater 'OFF' when not in use.

DO NOT unplug the heater while it is in operation or while the fan is still cycling.

When the heater is operated for the first time or after long periods of non use a slight odour may be emitted, this is normal. However if odours persist switch 'OFF' the appliance and contact Rinnai.

Appliances incorporating a live fuel effect and designed to operate with luminous flames, may exhibit slight carbon deposits.

This is primarily a decorative appliance and has not been designed as a space heater.

NOT INTENDED FOR FIREPLACE INSERT

WHAT TO DO IF YOU SMELL GAS

DO NOT try to light any appliances.

DO NOT touch any electrical switches: do not use any phone in your building

Immediately close the shut-off valve at the gas meter or bottles

Call an authorised service technician

SAFETY DEVICES

Electrical Fuse:

The electrical circuits are protected by a fuse.

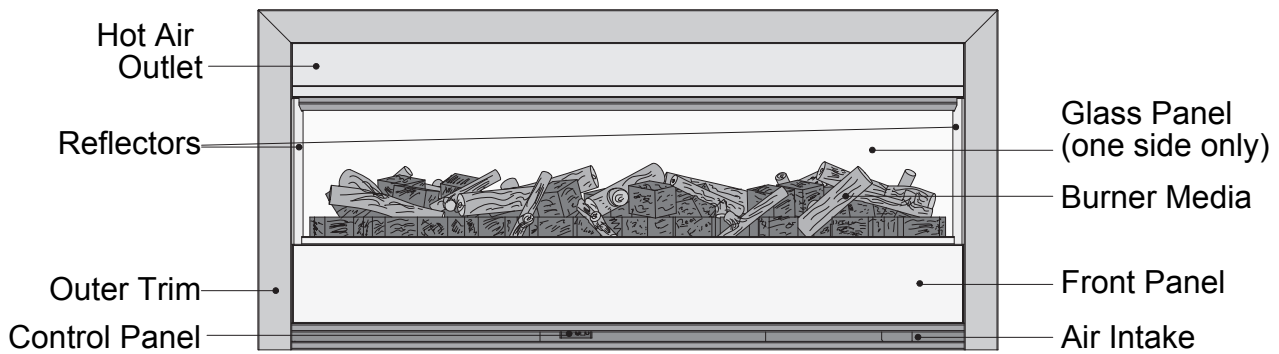
Flame Failure Sensing System:

This device automatically cuts off the gas supply to the heater in the event of a flame failure.

Power Failure:

In the event of a power failure or power cut, the gas valves will automatically close.

FEATURES



CONTROL PANEL OPERATION

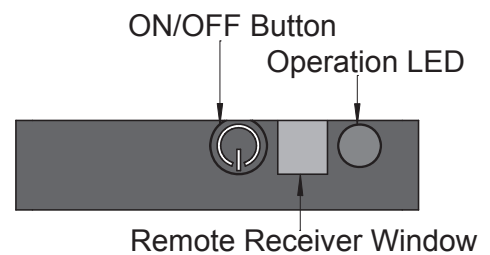
To operate your appliance for the first time, ensure that the gas supply is on and that the appliance has been tested and commissioned by an authorised installer.

Switch on the power supply to the appliance (This is usually a wall switch near to the appliance).

The appliance can now be started by using either the Control Panel or the Remote Control.

Ignition

Start the appliance by pressing the ON/OFF button for at least one second until the red light on the control panel comes on.



NOTE

If the appliance has not been used for some time then the gas may take some time to ignite as the gas in the pipes may need to purge.

The appliance will try to start for up to one minute before “locking out”. If this happens, then press the ON/OFF button twice to re-set then re-start the appliance.

If the appliance has not started after 3 attempts, contact the installer or an authorised service person.

Always run the appliance on high for at least a few minutes to ensure a quick warming up of the firebox and flue.



NOTE

The appliance will start on the same flame setting it was last used at unless the mains power supply has been disrupted or disconnected, whereby the default flame setting is reset to low.

To ensure a high setting, during ignition press the flame control + button for up to 10 seconds (refer to the remote control operation on page 6 for flame control details).

Once the Pilot has ignited, then gas will begin to flow to the main burner. The flame picture should be right across the burner within about 10 seconds.

If the burner does not light or only lights part way across then turn the appliance off immediately and call an authorised service technician for further advice.

Turning Off

The appliance can be stopped by pressing the ON/OFF button on the Control Panel or by pressing the power button on the remote control (refer to the remote control operation on page 6 for details).

The flames may take a few seconds to fully extinguish. This is normal and is not a cause for concern.

REMOTE CONTROL OPERATION



Here are a few things you should know about your remote control to keep it working at its best:

- The remote uses 4 AAA batteries, and has a range of about 8 metres with fresh batteries.
- When replacing the batteries, replace all 4, DO NOT mix old with new.
- Remove the batteries if the appliance is not going to be used for extended periods.
- Some fluorescent lights can affect the performance of the remote.
- Avoid dropping the remote or getting it wet.

Ignition

Point the remote control towards the appliance and press the power button for at least 1 second. The appliance will then commence the ignition sequence.

Always run the appliance on high for at least a few minutes to ensure a quick warming up of the firebox and flue. The flame can then be turned down if so desired.



The appliance will start on the same flame setting it was last used at unless the mains power supply has been disrupted or disconnected, whereby the default flame setting is reset to low. To ensure a high setting, during ignition press the flame control + button for up to 10 seconds.

Flame Control

Press the flame control + button to increase the flame or the flame control - button to decrease the flame.

Fan Control

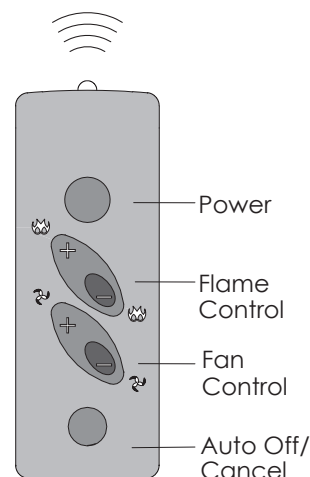
The appliance has a two speed fan (outlet on open side of appliance). Press the fan control + or - buttons to switch the fan to High, Low or Off.

Turning Off

To switch the appliance off, press the power button on the remote control.

Auto Off Timer

By pressing the auto off timer button on the remote control the appliance can be set whilst in operation for a 30 minute delayed switch off. The red indicator light on the front panel of the appliance will flash when this mode has been activated. Pressing the auto timer button a second time will cancel this mode.



OPERATIONAL SAFETY

This appliance is factory tested and the installation MUST BE tested by an authorised installer. You should not experience any odour from your appliance other than initial burn off smell the first time it is used. Should any odour persist after the initial burn in, turn off the gas supply and arrange for an authorised person to make a service call.

This appliance has a flame failure safety system which ensures that in the event of an ignition failure, gas supply failure or flame being extinguished for any reason, the appliance will shut down. The appliance will attempt to re-start automatically.

LOCK OUT

If the appliance fails to re-ignite then the appliance will “lock out” and will need to be re-set manually by pressing the ON/OFF button twice to re-set and re-start the ignition sequence.

Wait at least 10 seconds before re-starting the appliance and if the appliance fails to ignite after 3 attempts then turn off the power and refer to the trouble shooting section on page 24.



This appliance burns with a real flame and as such there are considerations to be made to ensure the safety of children and the infirm. In such circumstances a fire guard should be secured in front of the appliance. Furniture and other objects must not be placed within 1 metre of the fireplace.

Make sure that the lower and upper air inlets are not blocked as this could cause damage to the fan or cause the gas controls to overheat.

BURNER MEDIA

The burner media **MUST BE** positioned correctly by the installer. It is not intended that these are re-positioned by the user. Incorrect positioning can affect heat output and ignition.

ONLY burner media supplied by the manufacturer may be used in this appliance.

Due to the nature of luminous flames used in this appliance, a slight build up of carbon (soot) may be seen. This is quite normal and will not affect the performance of the appliance.

POWER FAILURE

In the event of a power failure, your appliance cannot be operated.

CLEANING

Regular cleaning of your appliance is important to keep it looking its best. Some points on cleaning:

- All of the exterior painted panels can be cleaned using household cleaners.
- The black interior panels and the burner media may develop a slight build up of soot, this is quite normal and might burn off over time. Do not try to remove the soot by rubbing with a cloth as this will only spread the soot around.
- Do not vacuum the burner media, especially the Log & coal bed, any reduction or modification of the burner media installed can effect the performance and or damage the appliance
- The stainless steel reflectors and front panel (if fitted) can be cleaned using a household stainless steel cleaner.

WHEN TO CALL FOR SERVICE

There are a few things to look out for that could indicate that your appliance requires a service call.

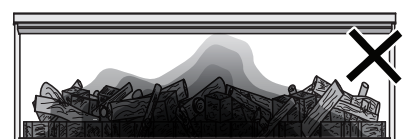
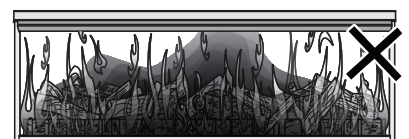
- If long streaky flames are touching the top of the firebox, this can cause the paint to blister and possibly damage the appliance.
- If you can smell gas, regardless of whether the appliance is going or not.



There can be a brief smell of gas as the appliance is going through the ignition sequence, however this should soon stop once the appliance has started.

Abnormal Flame Pattern

- If the pilot flame looks abnormal. Signs of abnormal pilot operation could be:
A very short flame that does not reach across to the flame rod.
A very long flame that reaches far beyond the flame rod or long yellow flames.
A roaring noise when the pilot is operating or the flame “lifting off” from the pilot head.
- If there are large soot deposits that keep building up on the burner media.
- If there is excessive noise or explosive ignition as the burner lights, this could be due to blocked burner ports.
- If a smell of flue gas continues after the appliance has been operating for at least 10 minutes. This could indicate a blocked flue or other problem. This smell is acceptable during the first few minutes as the flue heats up and starts to draw.
- If the flames change shape or colour. When the appliance first starts the flames will tend to be quite blue for a few minutes but will change to a more yellow/orange colour as the system heats up, this is normal, but if the flames either stay very blue, or turn a dark, streaky orange colour, this could indicate a problem. Contact Rinnai for advice.



SERVICE

In order for your appliance to give years of comfort and enjoyment, it is recommended that it is serviced on an annual basis by a licensed service gas-fitter. Please refer to the back of this manual for contact details.

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INSTALLATION SAFETY



This appliance must be installed by a suitably qualified person in accordance with local codes and AS/NZS 5601

This is primarily a decorative appliance and has not been designed as a space heater

This appliance has been tested to AS 4558

DO NOT operate this appliance without reading and understanding these instructions first

This appliance is designed for installation into a timber framed construction and new or existing masonry installations

NOT INTENDED FOR FIREPLACE INSERT

Only the approved flue components specified by Rinnai **MUST BE** used

This appliance must be installed into a well ventilated room in accordance with AS/NZS 5601

This appliance is designed for indoor installation only; **NOT TO BE INSTALLED OUTDOORS**

Rinnai is not responsible for incorrect or improper installations

All installations must be carried out by authorised personnel

Be sure to complete the installer details section of the user guide before signing off the installation

DO NOT place articles on or against this appliance

DO NOT store chemicals or flammable materials, or spray aerosols near this appliance

DO NOT operate with panels, covers or guards removed from this appliance.

DO NOT modify this appliance

SPECIFICATIONS

Models:	RF1200TW(N/P)
Burner Media:	Ceramic Logs / Coals and Granules Ceramic Pebbles
Gas Types:	Natural Gas Propane Gas
Description:	Indoor Decorative Fire
Flue:	2x 200 mm stainless steel inner/ 250 mm galvanized steel outer Minimum of 2.4 metres of flue, 3.6 metres if off-set bends are used
Flue Cowl:	AGA Approved 200 mm or 250 mm Flue Cowl(s) (dependant of flueing method)
Gas Connection:	3/8" BSPF Gas Flare onto gas control
Power:	230/240V a.c. 50hz, 1 Amp
Fan:	Tangential; 2 speed (outlet on open side of appliance)
Burner:	Bunsen type atmospheric
Gas Control:	SIT 845 with SIT 579. DBC modulating control
Ignition:	Electronic
Flame Monitoring:	Flame rod
Control	Electronic control with IR remote control

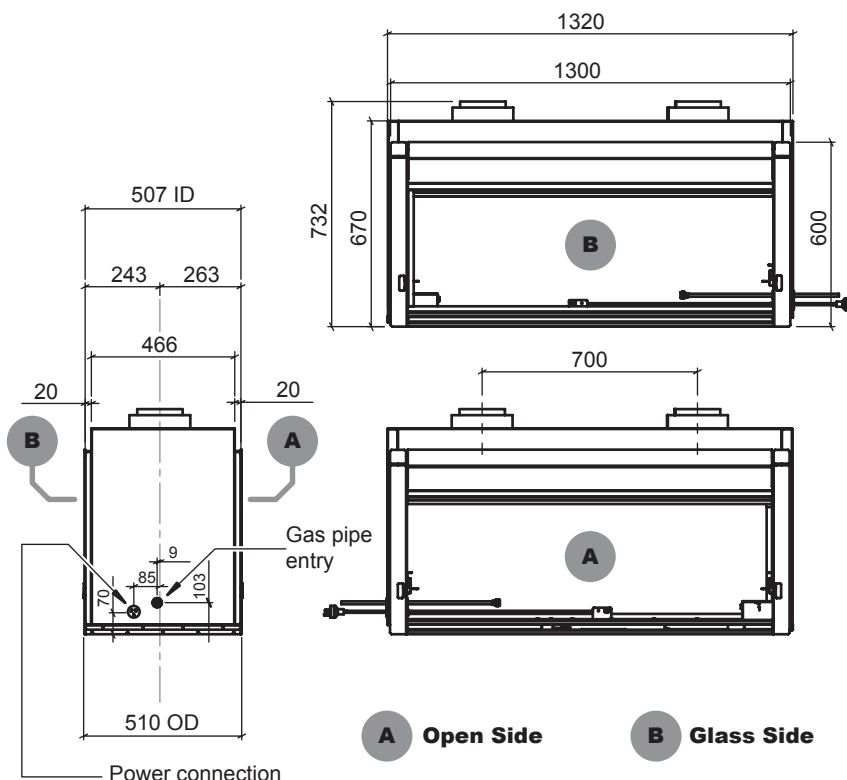


For all other specifications refer to the appliance data plate

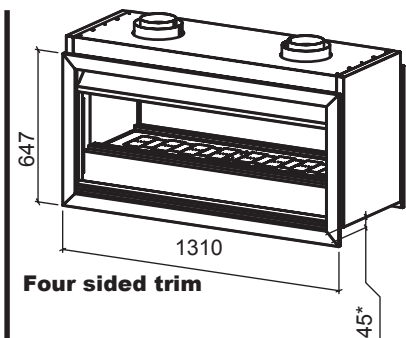
External Glass: This appliance is able to be installed as either a room divider or on an external wall with the addition of a piece of toughened glass. The manufacturer takes no responsibility for providing the means of meeting any regulatory or other building requirements. There are more details on this option covered in "External Wall Installation" on page 18.

DIMENSIONS

Engine

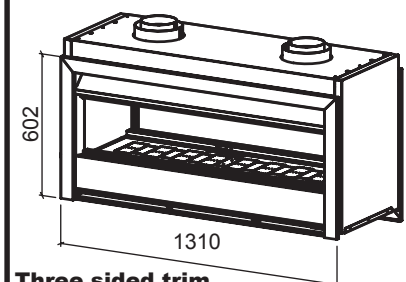


Trim



Four sided trim

* From base of engine to base of trim



Three sided trim

Note that a three or four sided trim may be fitted to either side of the appliance as required!

GAS & ELECTRICAL SUPPLIES

Gas Supply

A suitable gas supply needs to be provided to the left hand rear corner of the installation cavity prior to installing the appliance. The pipe sizing should be calculated to supply at least 67MJ/h.

Allow sufficient pipe to make the connection as shown right.



The gas inlet access point for this appliance is provided with a set folding flaps to allow piping with fittings attached to be passed through for connection.

For vermin control ensure that these flaps are closed again once the piping has been installed.

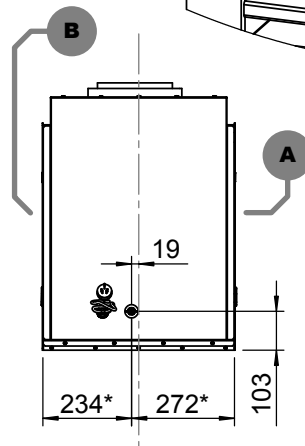
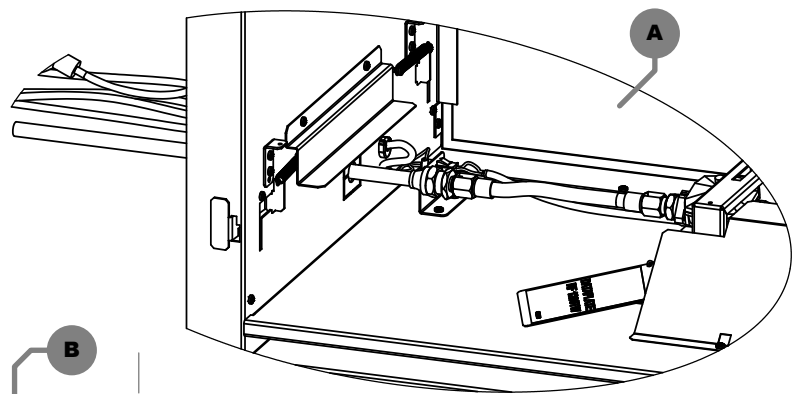
Use the supplied gas connection kit (200mm 3/8 Flexi tube with plug and 3/8" - 1/2" reducing flare connector) to connect the appliance to the consumer piping.

Electrical Supply

The appliance is supplied with a power lead approx. 1.8m long. This needs to be connected to an isolating wall socket within the cavity and connected to an isolating wall switch, preferably located to the right of the appliance, facing into the room, not inside the framing cavity.

This supply is used to isolate all power from appliance. The power cord is designed for a 230/240V AC 10 amp supply.

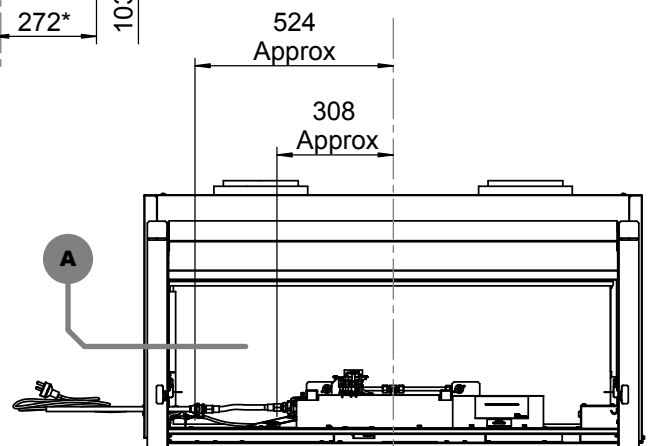
Electrical connections must be in accordance with AS/NZS 3000 and installed by an authorised person.



A Open Side

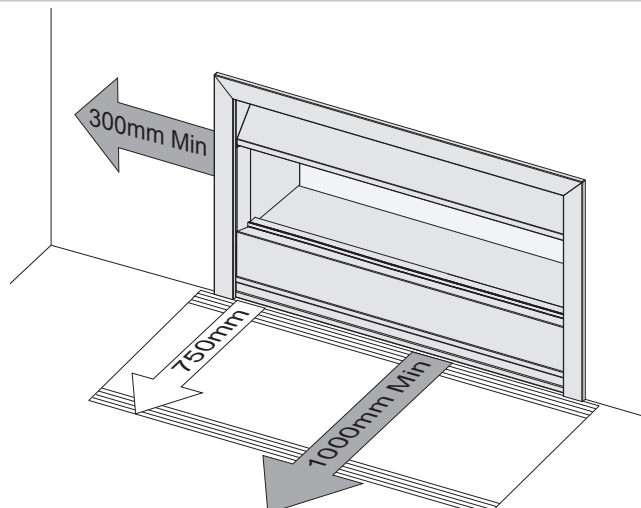
B Glass Side

* From finished wall lining



CLEARANCES

The appliance must be installed with the shown minimum clearances to combustible materials. See also "Mantles, Surrounds, Recesses & Hearths" on page 13 for additional information.



MANTLES, SURROUNDS, RECESSES & HEARTHES

Mantles

A timber mantle may be installed above this appliance but must be within the grey area as shown here.

Timber Surrounds

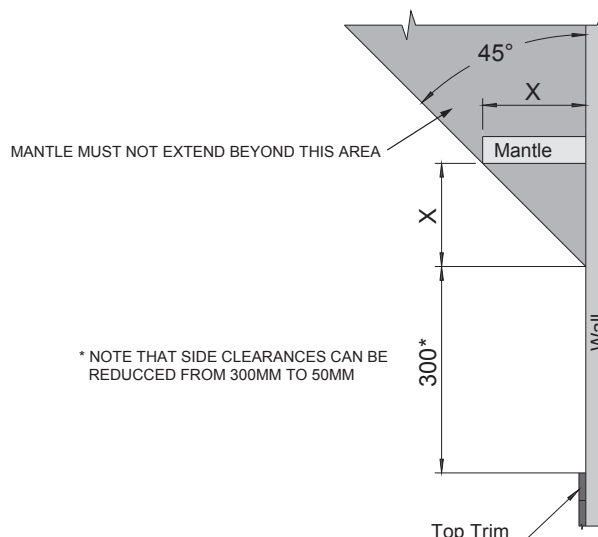
As with mantles when a timber surround is to be fitted, ensure it complies with minimum timber clearances of 300mm above and 150mm to each side.

Recesses

If the appliance is to be installed into a recess the recess must comply with the following limitations.



The same limitations apply to the sides of the appliance.



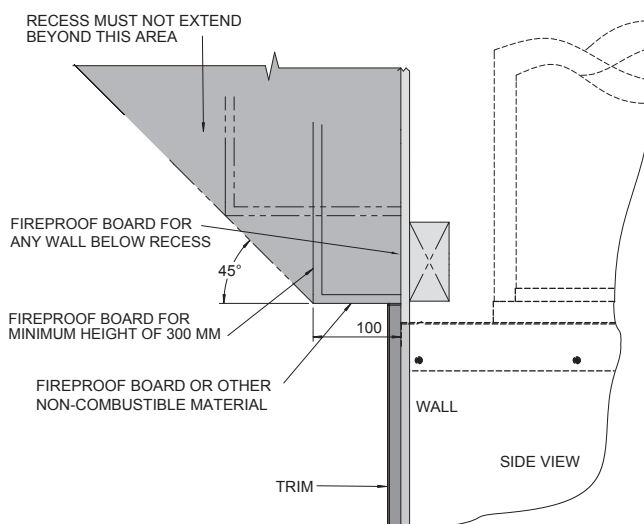
TV or Ornamentation Above The Heater



The installation of electrical appliances above and in the vicinity of the heater such as, but not limited to, Plasma TV, LCD TV, Home Theatre Screens, Speakers, etc must comply with their manufacturers' instructions.

It is the responsibility of the installer/end-user to check the installation instructions of these items and to ensure the location is suitable.

This caution also extends to, but is not limited to, ornaments such as: Paintings, Prints, Photographs, Tapestries, Mirrors, Stuffed Animals, etc.



Use either a shelf or mantle below the TV or ornament or alternately you can construct a recess to mount TV or ornament on.

Check the manufacturers installation instructions for these items and ensure the recess is suitable.

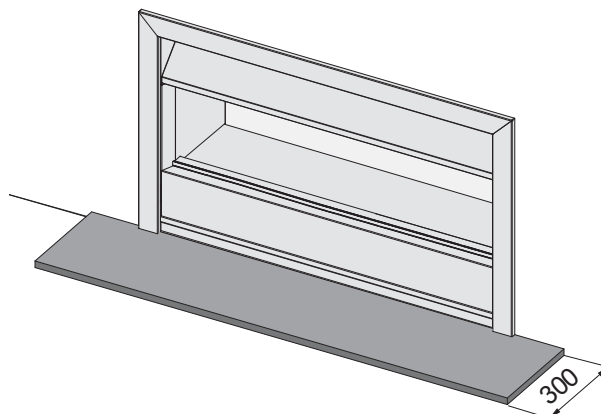


Rinnai does not take any responsibility for any damage occurring to any items installed above and in the vicinity of the heater.

Hearths

Although a solid hearth is not required, if the appliance is to be installed within 300mm of the floor, it is recommended that protection is given to any flooring surface directly in front of the unit.

The appliance produces a large amount of radiant heat and this might cause damage to flooring and furnishings that are too close.



VENTILATION



This appliance is a decorative flame effect appliance, the space or room in which the unit is installed must have adequate fixed ventilation compliant with the requirements of AS/NZS 5601.

For Decorative Gas Log Fires this requires that one or more openings with a combined free ventilation area of not less than 314 cm² shall be provided for each appliance.

The opening may be provided by any of the following options, provided that there is a ventilation path to outside that is unobstructed by building material or insulation:

- Directly through an outside wall (preferred option).
- Through to an outside wall but offset.
- Into a cavity ventilated to outside.
- Into an underfloor space ventilated to outside.
- Into a roof space ventilated to outside.

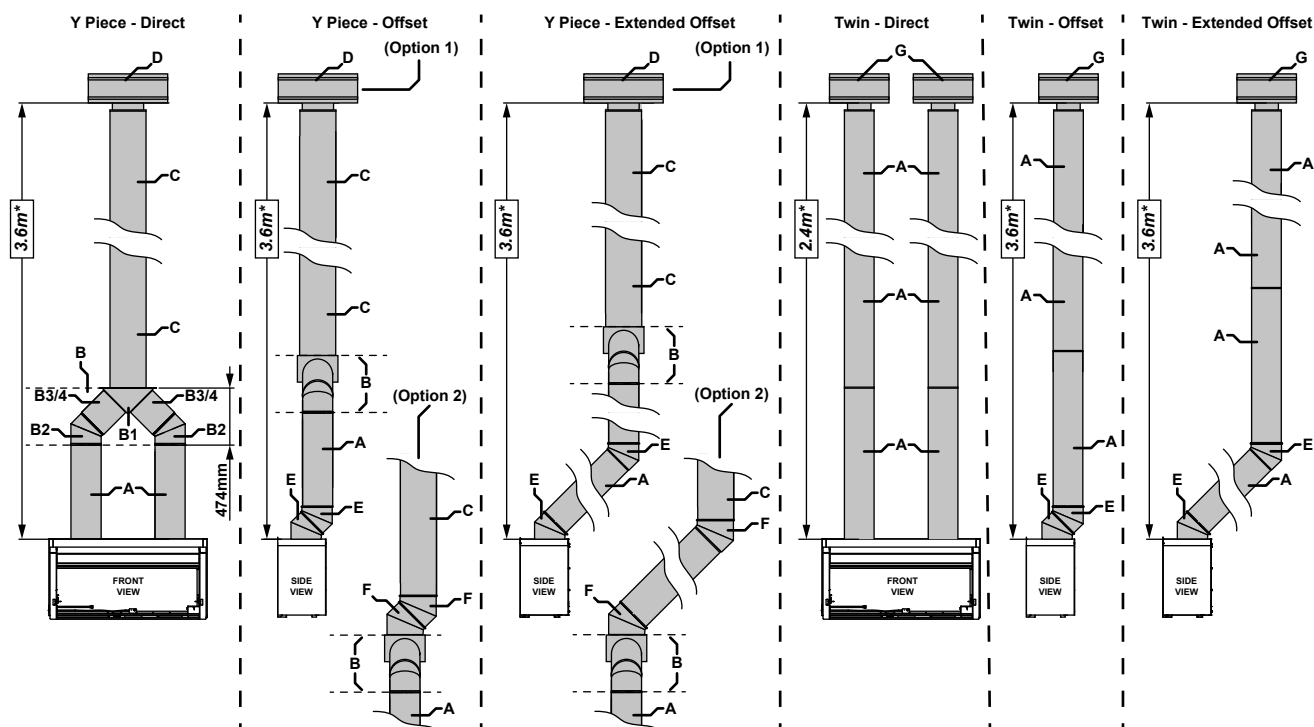
FLUE REQUIREMENTS



ONLY the Rinnai flue components described in this manual are to be used with this appliance.

The installation of the flue system **MUST** comply with the requirements of AS/NZS 5601.

Examples of the available flue component configurations are shown below.



* This is the minimum flue height for the configurations as shown, for additional bends increase the flue height in accordance with AS/NZS 5601.

Y Piece - Direct: Allows the twin flues to be joined to a single flue for termination. It is recommended that the flue be taken vertically as high as is practicable before joining to the Y Box assembly.

Y Piece - Offset / Extended Offset: Same as “Y Piece - Direct” with the inclusion of one 45° offset or extended offset.

Twin - Direct: Uses two separate flue pipes to the flue termination point.

Twin - Offset / Extended Offset: Same as “Twin - Direct” with the inclusion of one 45° offset or extended offset.

Minimum Flue Heights	Y Piece Direct	Y Piece Offset	Twin - Direct	Twin - Offset	Twin - Extended Offset
	2.4m	3.6m*	2.4m	3.6m*	3.6m*

* Only 1 x 45° bend set can be used on each flue for Offset or Extended Offset flue installations.

Additional bends may be utilised, however this will then require that additional vertical lengths also be included to increase the flue height in accordance with AS/NZS 5601.

Flue Components

A. RFPIPE200

900mm twin skin flue pipe -
 ø 200mm inner / ø 250mm outer
(length approx 855mm when installed)

B. RF1200YPIECE

1. Y piece collector box (1x) -
 2x ø 200mm inner / ø 250mm outer to
 1x ø 250mm inner / ø 300mm outer.
 2. 45° twin skin bends (2x) -
 ø 200mm inner / ø 250mm outer.
 3. 260mm flue pipe (2x) -
 ø 200mm.
 4. 260mm flue pipe over-wraps (2x) -
 ø 250mm.
- (height approx 474mm when installed)*

C. RFPIPE250

900mm twin skin flue pipe -
 ø 250mm inner / ø 300mm outer
(approx 855mm when installed)

D. RFCOWL250

Connection ø 250mm, Outer ø 400mm

E. RFBEND200

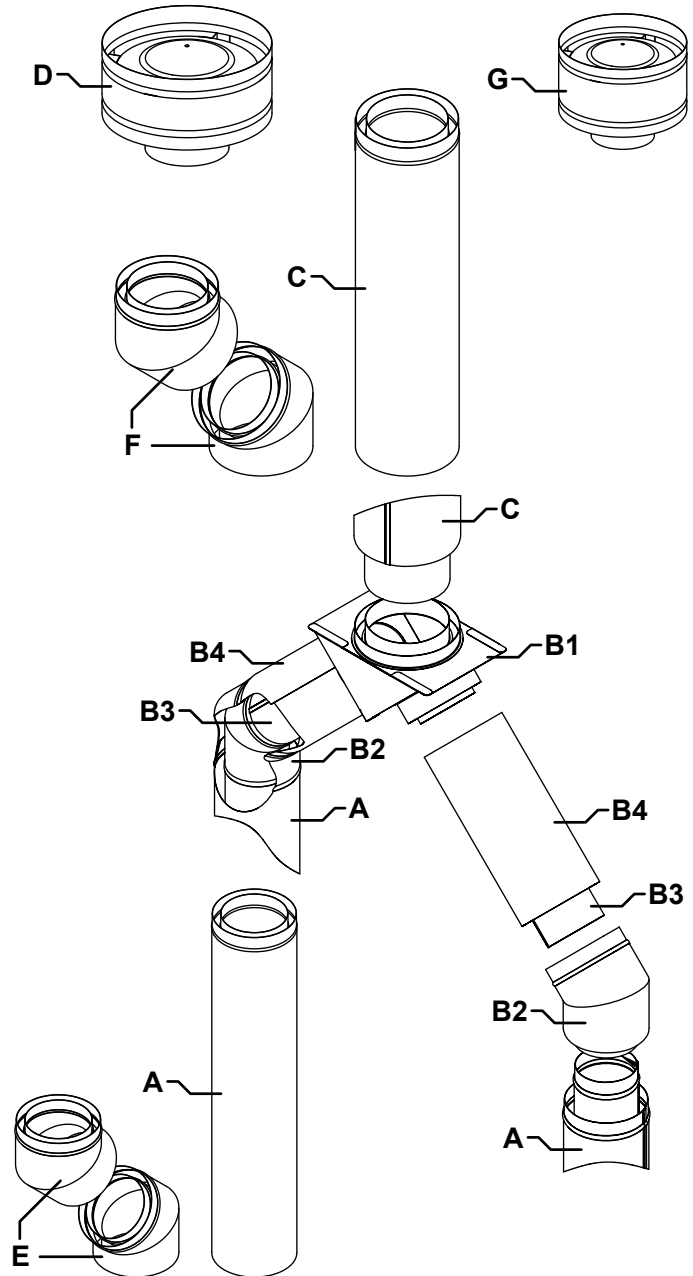
2x 45° twin skin bends -
 ø 200mm inner / ø 250mm outer
(height approx 357mm when installed)

F. RFBEND250

2x 45° twin skin bends -
 ø 250mm inner / ø 300mm outer
(height approx 392mm when installed)

G. RFCOWL200

Connection ø 200mm, Outer ø 350mm



Y Piece Collector Box Assembly

1. Fit the RFPIPE200 flue pipes (**A**) onto the engine using rivets and sealant as required.
2. Fit the ø 200mm inner 45° bends (**B2**) but do not fix in place yet.
3. Fit the ø 250mm outer 45° bends (**B2**) and leave loose.
4. Fit the two 260mm ø 200mm lengths of flue pipe (**B3**) to the ø 200mm inner connections of the Y piece collector box (**B1**), then fit and square up with the assembly from above. Then fix all but the ø 250mm outer 45° bends (**B2**) in place.
5. Fit the two 260mm over-wraps (**B4**) over the ø 250mm outer 45° bends (**B2**) and the ø 250mm outer connections of the Y piece collector box (**B1**) and fix all in place.
6. Complete the flue to the termination point using RFPIPE250 (**C**) and RFCOWL250 (**D**) as required.

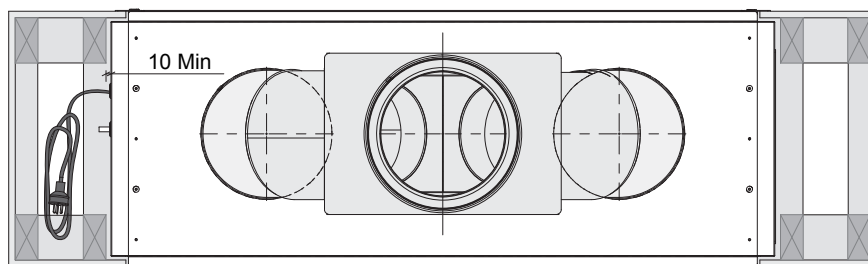


The minimum total flue height is 2.4 metres, providing the flue is direct without offsets.

Offsets can be used on flues over 3.6 metres in height.

ENGINE INSTALLATION

Framing Drawing

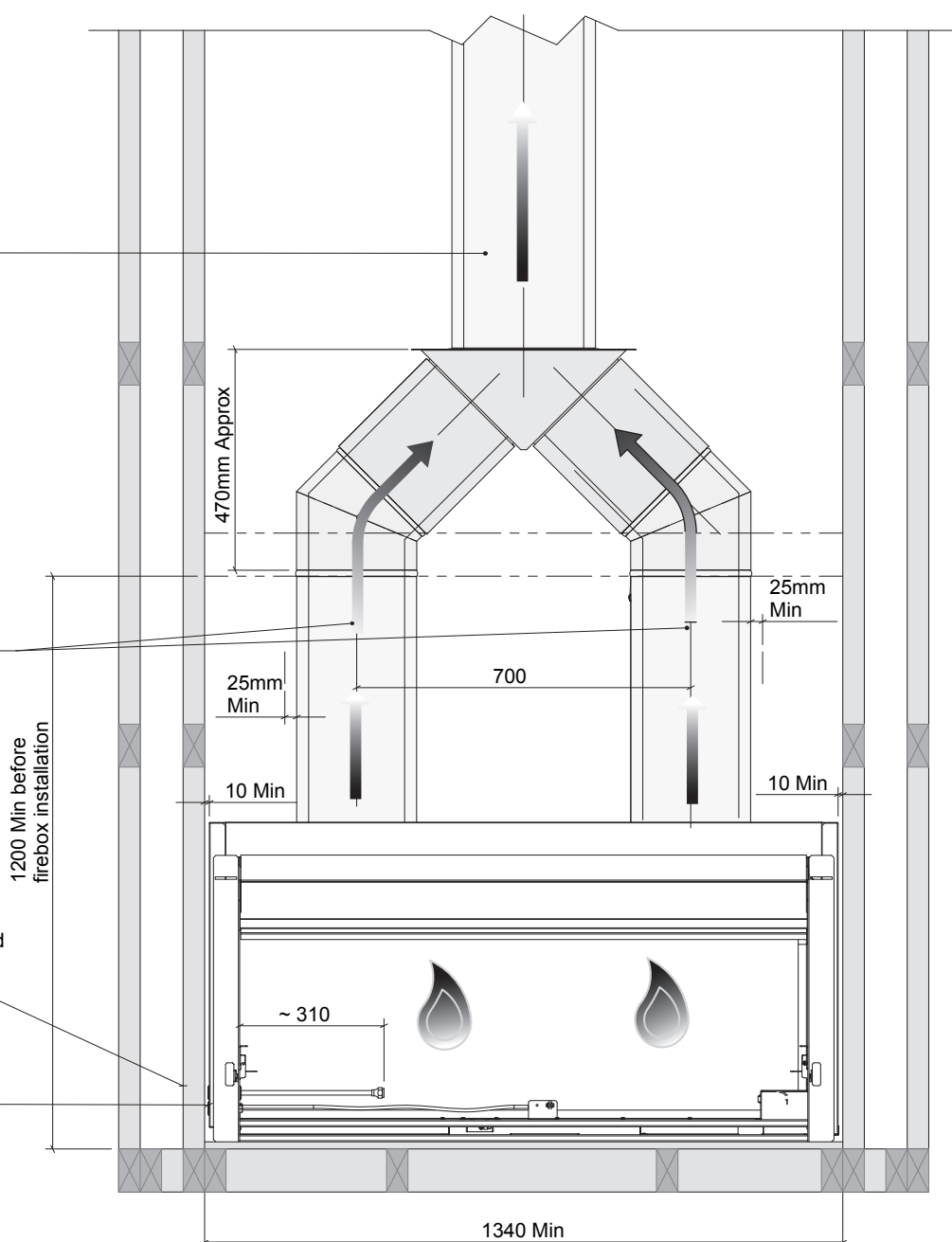


250mm stainless steel inner
300mm galvanised outer flue
Note - the Y-piece does not
have to be used and the flue
can be finished using two
200/250 flue

200mm stainless steel inner
250mm galvanised outer flue
While the Y-Piece can be fitted
directly onto the firebox, it is
recommended that 1200mm of
flue is fitted before the Y-piece

Suitable gas supply required to
provide at least 65MJ/h. At least
310mm of supply pipe is required
to reach gas control

Min 1 Amp electrical
supply required.
Fire supplied with 1.8m
power cord with 3 pin plug



Fire is viewed from the open side with the glass to the rear. It must be confirmed which way the fire is to be viewed prior to installation as the glass can not be reversed.



The flue and engine must be installed before the wall can be lined. Remember that both gas and electricity are required within the cavity (see, “Gas & Electrical Supplies” on page 12).

The framing must be self supporting and not place any load on the engine.

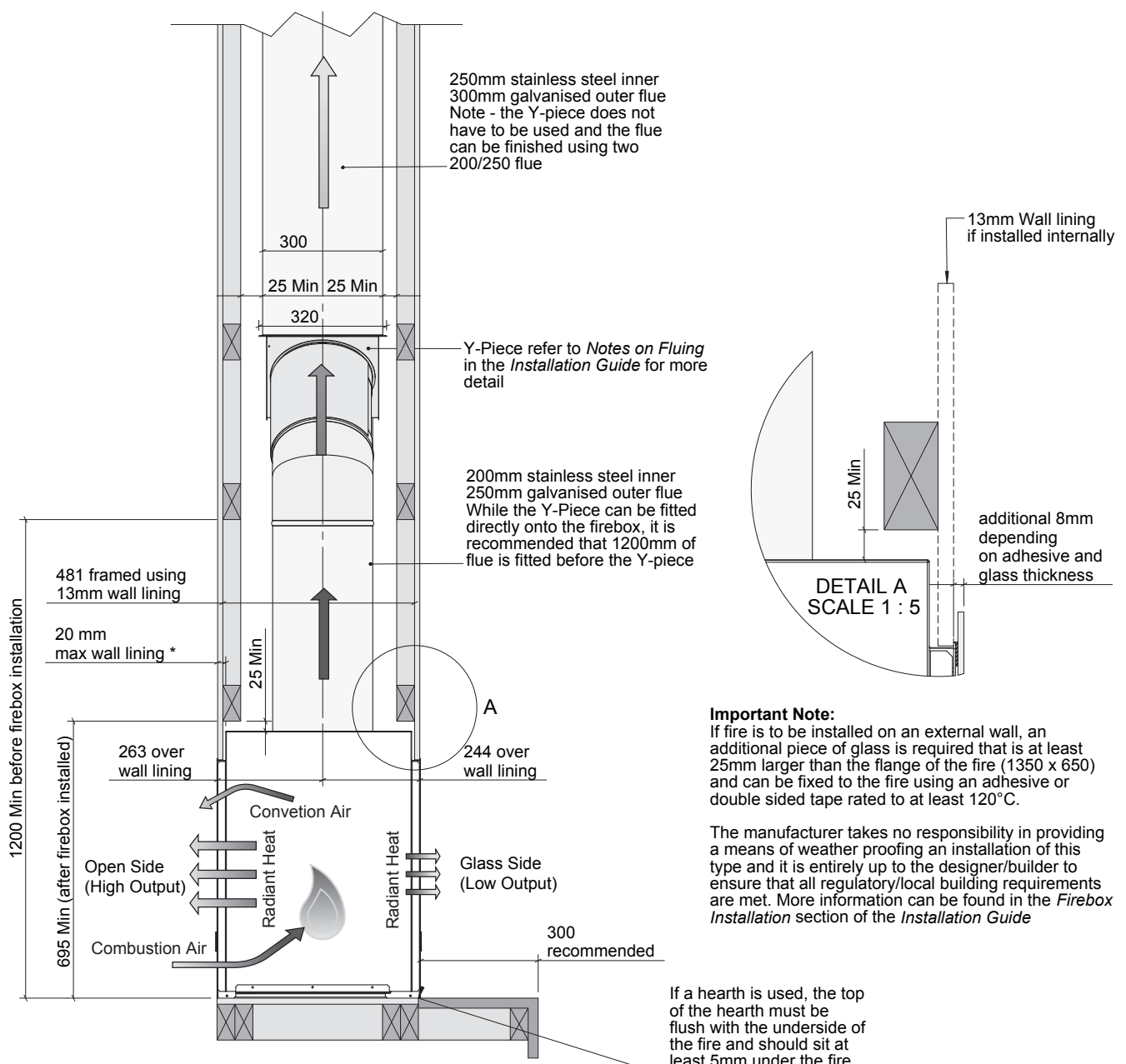
The framing shown is indicative only is not intended to illustrate the construction method. The installation shows one flue option (using the optional Y-Piece) but does not represent a complete system.

The appliance should be installed on a solid platform.

Gas and power supply must enter through the left hand end of the engine when viewed from the open side.

Refer to the next section for notes on external wall installation.

When engine installation is complete, the fitting of cardboard from the packaging material to the front flanges on both sides of the appliance with some low-tac masking tape will help to protect the appliance from dust, paint, etc. of subsequent construction drawing into the appliance or marking the glass.



* For wall linings of more than 13mm a non-combustible material must be used for at least 200mm above the fire

Whilst a hearth is not required, it is recommended that protection be given to any combustible flooring directly in front of the fire if installed less than 300mm from the floor.

If a hearth is used, the top of the hearth must be flush with the underside of the fire and should sit at least 5mm under the fire

EXTERNAL WALL INSTALLATION

The following information is for guidance only and is in no way intended as a means of compliance to regulatory or local building codes. Design of any flashing or other means of weather proofing the wall penetration is entirely the responsibility of the designer/architect/builder.



Any tape or adhesive used for fixing the glass to the appliance must be able to withstand temperatures of at least 120°C

Any tape or adhesive should only be applied to the outer 20~25mm of the appliance flanges

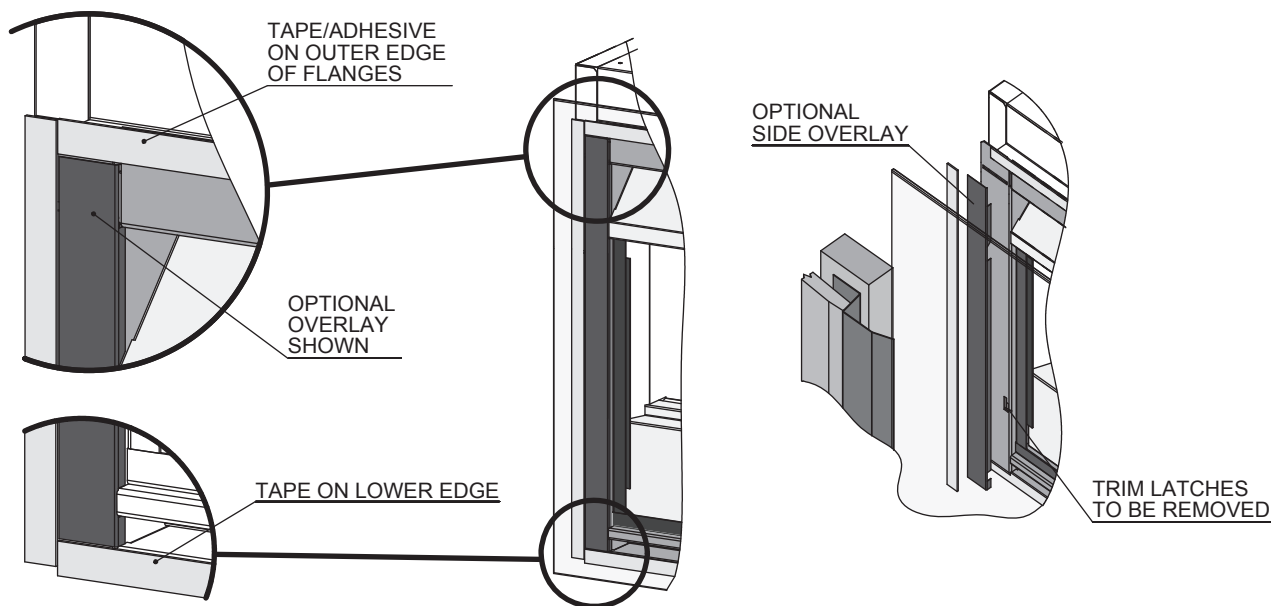
Any product used in contact with the glass must be capable of performing at temperatures not less than 120°C and should not come within 35mm of the top inside edge of the appliance. Temperatures on the side flanges allow closer contact.

If the designed flashing will not fully conceal the engine side flanges, an optional overlay is available to cover the holes for the trim latches and the upper hanger slots.

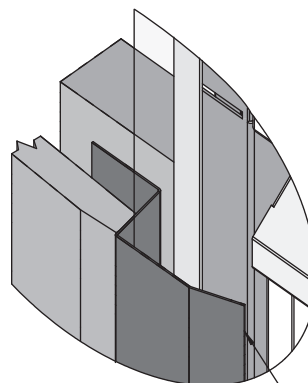
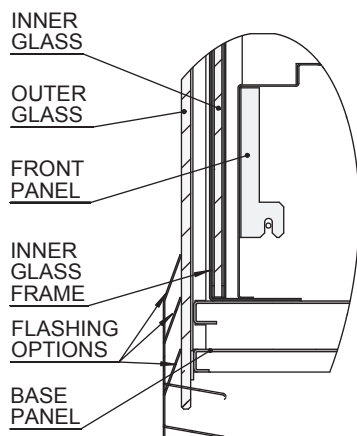
There is no air intake or outlet on the glass side of the appliance so there is no concern about blocking the side of the appliance.



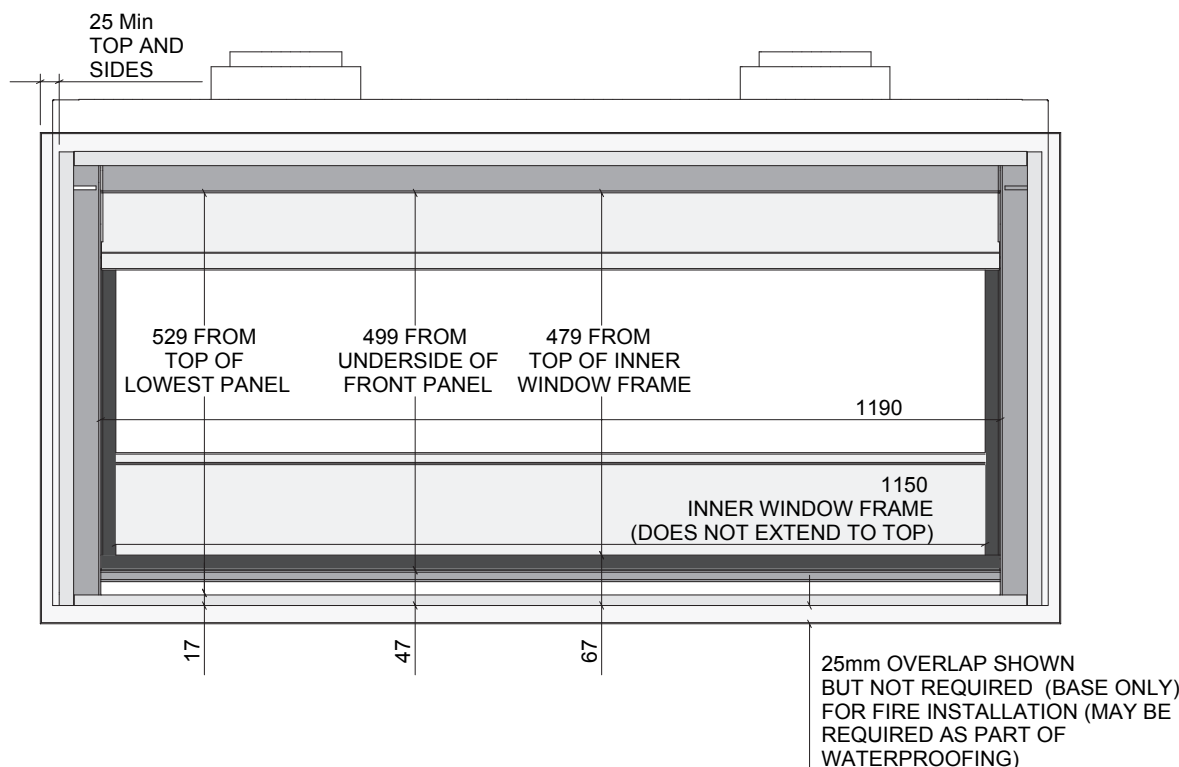
It is important that the glass is sealed against the appliance to prevent hot air flowing up into any combustible materials used directly above the appliance - a secondary means of protection may be required. It is not necessary for the glass to be permanently fixed to the appliance so long as the glass is held in place independently of the appliance and a seal between the two is maintained and the seal can withstand temperatures in excess of 120°C.



The flashing can be designed to act as a trim to conceal the edges of the appliance but must not protrude into the viewing area of the appliance where it will be exposed to the radiant heat given off the burner and upper louvre or the conducted heat of the glass. This means no more than 15mm in from the side flanges, and 10mm from the upper edge. The lower edge can be covered by as much as 200mm from the base of the appliance.



IF FLASHING IS DESIGNED TO COVER FIRE FLANGE THEN THE OVERLAYS MAY NOT BE REQUIRED

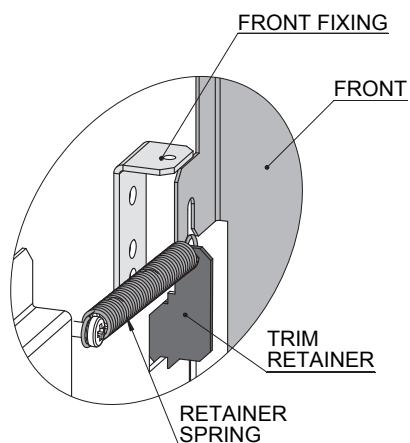


Before the outer glass can be fitted, the lower trim catches need to be removed. This cannot be done once the glass has been attached.

Remove the retainer springs from inside the engine and the latches can then be removed from the outside of the engine.



Make sure that both inner and outer glass panels are clean and all protective plastic has been removed from the stainless steel louvre and all dust and fingerprints etc. are removed before fixing outer glass to engine - whilst removal of the inner glass is possible there is no access to the top louvre or lower divider panels.



APPLIANCE GAS CONNECTION & COMMISSIONING

Once the engine has been installed and fixed to the building the gas and electricity can be connected. Some installers elect to leave this until the decorating has been completed and the installation can be finished, remember that the trim can not be attached until the wall lining is finished.

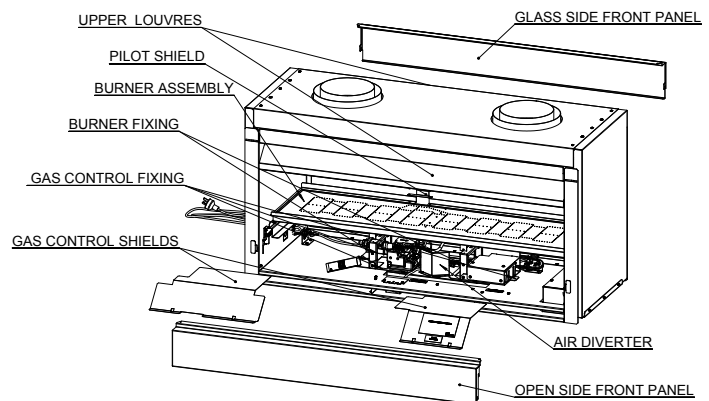


If commissioning is to be carried out after the decorating has been completed, leave a protective cardboard cover taped to the front of the engine using a low-tack tape to prevent plaster dust and debris from entering the engine and damaging the paint work.

Isolate the power and gas supplies before commencing work on the appliance.

Gas Connection

1. Remove the open side and glass side front panels and strip all the protective plastic film from these items.
2. Remove the protective plastic film from upper louvres on both sides.
3. Remove the gas control shields (x2).
4. Remove the pilot shield.
5. Remove the burner assembly by removing the two fixing screws in front of the burner and pulling the tray forward and then upwards to remove from the gas control.
6. There may be aeration sleeves attached to the venturi tubes on the back of the burner, take care not to lose these, there is a chart on page 21 that shows which aeration sleeve should be used depending on the gas and burner media being used.
7. After bending and flaring the gas supply pipe, purge the gas pipe and fix the gas control assembly back in place and connect the gas.
8. Replace and fix the burner assembly in place.



Gas Commissioning



240 VOLTS, RISK OF ELECTRICAL SHOCK!

When performing the commissioning, the appliance electrical power will need to be connected. Exercise **CAUTION** as there is potential for electric shock from the exposed wiring and circuitry. **DO NOT** leave the appliance unattended when power is connected and the panels are removed. Installation and commissioning must be carried out by an authorised person.

Wiring inside this appliance may be at 240V potential.

DO NOT test for gas escapes with an open flame.



GAS PRESSURES

Refer to the appliance data plate located inside the appliance on a swing tag for correct gas pressure settings.

To check and set burner pressures:

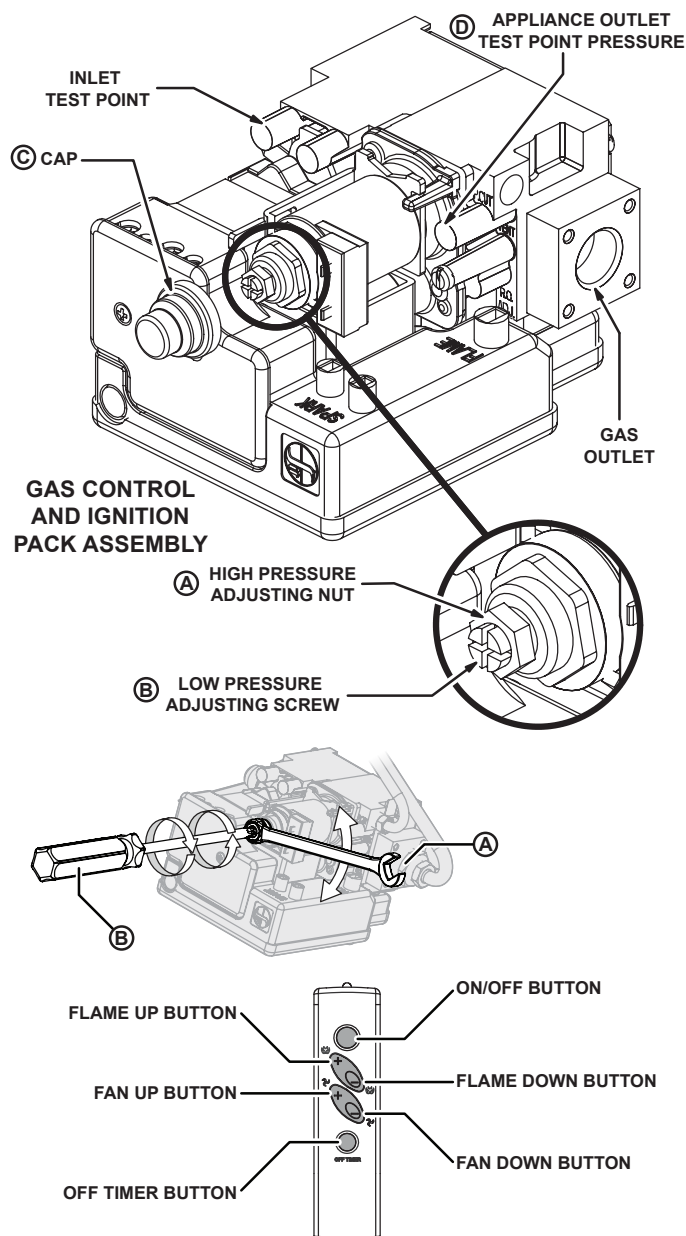
1. Using a suitable screw driver loosen the captive Appliance Test Point Pressure (ATPP) screw **D** and fit the manometer, (an electronic manometer is recommended). Refer images for ATPP location.
2. Remove the dust cap **C** from the regulator adjusting screws.
3. **High Pressure Setting:** Turn the appliance 'ON' and adjust to the highest setting, see "Remote Control Operation" on page 6. Use a 10 mm spanner to turn nut **A**, lock screw **B** with appropriate screw driver to prevent it turning. Turning nut **A** clockwise increases the outlet pressure whilst turning anti-clockwise decreases the outlet pressure.

4. **Low Pressure Setting:** Turn 'OFF' the power to the POV by separating the connector of the two yellow wires that power the POV. The POV will automatically default to 'Low Pressure' operation. Keep the high pressure adjusting nut stationary using a 10 mm spanner. Use an appropriate screwdriver for setting screw **B**. Turning clockwise increases the outlet pressure whilst turning anticlockwise decreases the outlet pressure.
5. Replace the dust cap **C** after pressure adjustments.
6. Reconnect the POV Yellow wires power connection.



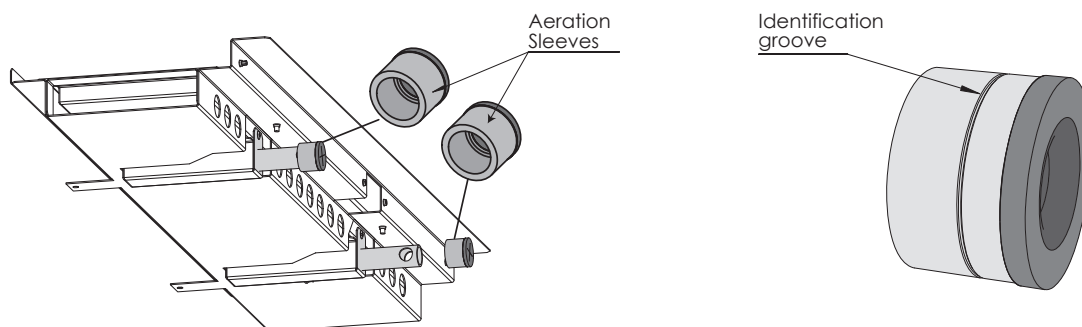
To ensure the correct operation of the modulating valve (POV) it is necessary that the dust Cap C is returned to its original location.

7. After re-checking the pressures, turn the appliance 'OFF', remove manometer and replace the ATPP screw **D**. Check all connections and test points for leaks using soapy water solutions.
8. Turn the appliance 'ON' and 'OFF' a few times to confirm correct ignition and operation.
9. During the initial burn in period, some smoke and smell may be emitted. The appliance should be run on the high position in a well ventilated room until these dissipate.
10. Check the flame pattern, see "When to call for Service" on page 7.
11. Proceed to the section "Trim Installation" on page 22



AERATION SLEEVE DETAILS

It is important that the correct aeration sleeves are used for each gas type and burner media. The appliance should have been supplied with the correct aeration sleeves. If the appliance is to be set up on propane with pebbles or crystals then the sleeves supplied with the burner media need to be fitted. Refer to the notes supplied with the burner media and the chart below for more information.



Gas Type	Burner Media	No. of ID Grooves on Sleeve (Depth of Sleeve)
Natural Gas	All	3 (20mm)
Propane	All	2 (10mm)

PILOT BURNER PERFORMANCE

When operating at its best, the pilot burner will produce a sharp blue flame with a light blue inner cone. This inner cone should reach across to the flame rod and slightly beyond. The size of the pilot flame cannot be adjusted and is dependant on inlet pressure.

Signs of abnormal pilot operation could be:

- A very short flame that does not reach across to the flame rod. This could be due to a reduced inlet pressure or a blocked pilot injector.
- A very long flame that reaches far beyond the flame rod. This could be due an incorrect pilot injector.
- A roaring noise when the pilot is operating or the flame “lifting off” from the pilot head. This could be due to too high an inlet pressure.
- Long yellow flames. This could be due to blocked primary aeration of the pilot.



Any one of these conditions could affect the performance of the appliance (such as soot build up on flame rod, etc) and should not be left unresolved. Contact your authorised service agent .

TRIM INSTALLATION



The outer trim panel cannot be installed until the wall board has been attached and finished (decorated)

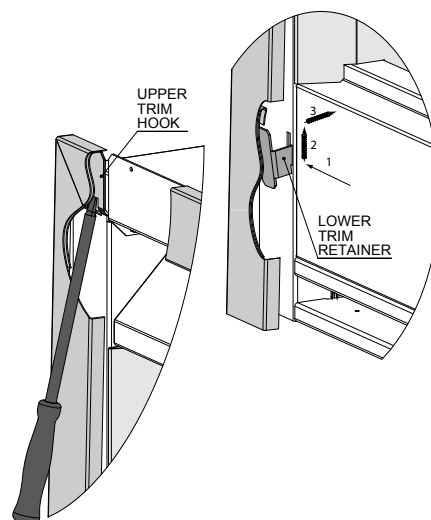
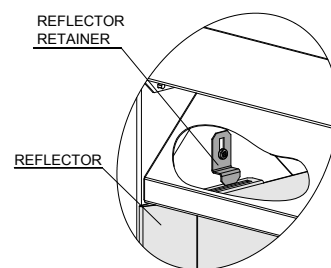
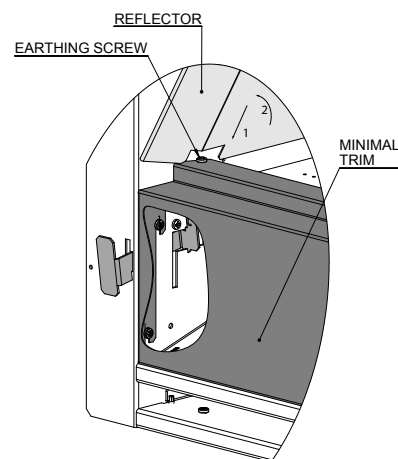
It is recommended that the installation of the trims and burner media is left until the room is complete and all decoration is finished.

Leave the protective cardboard cover taped to the front of the engine using a low-tack tape to prevent plaster dust and debris from entering the engine and damaging the paint work.

1. Fit the Minimal Trim so that the two hooks in each end fit over the screws in the side of the engine as shown below.
2. Fix the trim in place using an earthing screw (with serrated washer) in one end of the trim.
3. Fit the reflectors by fitting over the front trim at an angle and then standing up against the side of the engine. There is a catch above the top edge of the reflector to hold it in place.
4. Pull the two spring loaded Lower Trim Retainers forward and down until they lock in place as shown.
5. Fit the outer trim over the Upper Trim Hooks. If adjustment of the hooks is required, use a screwdriver to prise the hooks forward, or push them back until the trim fits flush with the wall.
6. Hold the leg of the trim against the Lower Trim Retainer and push the Retainer outwards, the spring Retainer will pull up into the bracket on the back of the trim and back into the cavity once the bracket is horizontal again.



Take care when the spring grabs that the trim is not resting on the hearth as it could bite into the surface and scratch it. Either hold the trim slightly higher or use a thin piece of card between the leg end and the hearth.



7. Proceed to “Burner Media Installation” on page 23.

BURNER MEDIA INSTALLATION



ONLY use the burner media supplied by the manufacturer in this appliance.

DO NOT BURN WOOD OR ANY OTHER MATERIAL IN THIS APPLIANCE.

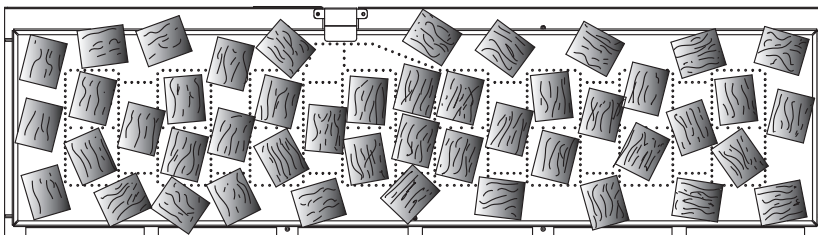
Logs, Coals and Granules

This burn media option consists of a set of ceramic Coals, Logs (of various size and shape) and Granules.

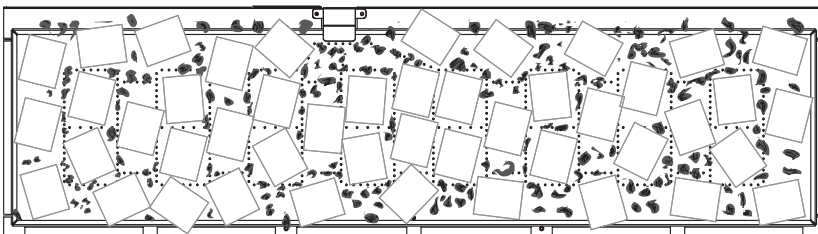
Refer to the table right for details on the size and quantity for each of the supplied burn media components.

Item	Size	Quantity
Coals	50mm x 50mm x 50mm	60
Y Shaped Logs	Ø35mm x 200mm	2
Straight Logs	Ø35mm x 200mm	2
Straight Logs	Ø35mm x 150mm	4
Twigs	Ø25mm x 150mm	12
Granules	Ø10mm ~ Ø20mm (Chunks)	280g

1. Place approximately 46 coals onto the burner top taking care to not block too many burner ports. There is no set way to place the coals but the following diagram can be used as a guide. Take care not to cover the aeration slots on the front of the burner or block the pilot and tracking holes on the burner top. Logs, Coals and Granules.

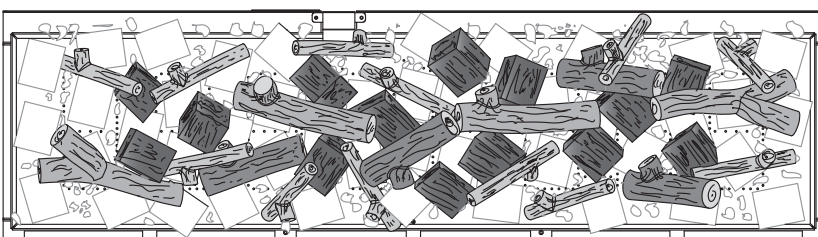


2. Carefully **place** the granules onto the burner in a single layer that covers some of the holes in places where they may be seen when finished and also around the front and back of the burner as a decoration.



Avoid pouring the media over the burner, as this can block the burner ports with the fine dust that tends to settle in the bottom of the bags during shipping.

4. Place all the remaining coals and logs on top of the coals that were placed on the burner in step 1, ensuring that there are plenty of gaps between logs and coals.
5. Once all the logs and coals are in place, light the fire and assess the look of the flames.



If there are any areas that have very long streaky flames then, using a pair of tongs, move the top logs or coals to another position until the flames are more even across the whole burner.

Pebbles / Crystals (Crushed Glass), Where Applicable

1. Place **DO NOT POUR** all of the supplied Pebbles or Glass evenly across the entire area of the burner. The finished depth will be about 2 ~ 3 pebbles or about 20 mm of glass. Take care to keep the area directly around the pilot burner clear of burner media.
2. **DO NOT PILE** glass or pebbles over the top of the pilot assembly as this could affect its performance. It may be possible to build the media up around the pilot to hide it slightly but always check that the pilot is operating at its optimum when finished. (Refer to "Pilot Burner Performance" on page 22)



Avoid pouring the media over the burner, as this can block the burner ports with the fine dust that tends to settle in the bottom of the bags during shipping.

FINAL CHECKS

Check that the appliance operates properly in all modes (high & low gas rates, fan high & low.) and make sure that all the supplied parts are used and properly installed.

It is important that the customer is fully aware of how to operate the appliance properly and safely. Advise the customer to fully read the operation sections of this manual to understand how to get the best out of their appliance. Advise the customer of the need for regular servicing in order to maintain the warranty.

Complete the **Commissioning Checklist**.

TROUBLE SHOOTING

Symptom	Possible Cause(s)	Corrective Action(s)
Front panel ON/OFF button does not work (no spark noise)	Mains Power Disconnected	Check mains supply & isolating switch
	Gas Control Locked Out	Press ON/OFF button twice to reset*
	Faulty Control Mechanism	Service Call
	ON/OFF button not held for 1 second	Hold ON/OFF button for at least 1 second
Remote control ON/OFF button does not work (no spark noise), yet the front panel ON/OFF button does work	Flat Batteries	Replace Batteries
	Signal interference	Move to another part of the room
	Faulty remote control or receiver	Service Call
	Gas Control Locked Out	Press ON/OFF button twice to reset*
	ON/OFF button not held for 1 second	Hold ON/OFF button for at least 1 second
Ignition is sparking then locks out	Air in gas supply	Purge gas supply*
	Gas supply turned off or empty	Turn on gas supply or change gas cylinder
Sparking continues, after pilot flame ignites	Faulty flame rod	Service Call
	Dirty gas in cylinder (LPG/Propane)	Replace or change over gas cylinder
Pilot ignites, yet main flame does not	Faulty gas control	Service Call
Flame goes out	Gas supply turned off or empty	Turn on gas supply or change gas cylinder
	Mains power disconnected	Check mains supply & isolating switch
	Accidental operation of remote control	Check location of remote control
Fan does not operate	Flat batteries in remote control	Replace Batteries
	Faulty remote control or receiver	Service Call
	Faulty fan or wiring	Service Call

* If the appliance fails to ignite after three (3) attempts, turn off the power and gas if possible and arrange for a service call or contact the installer if the unit is newly installed.

COMMISSIONING CHECKLIST

To be completed by the installer

Serial Number _____

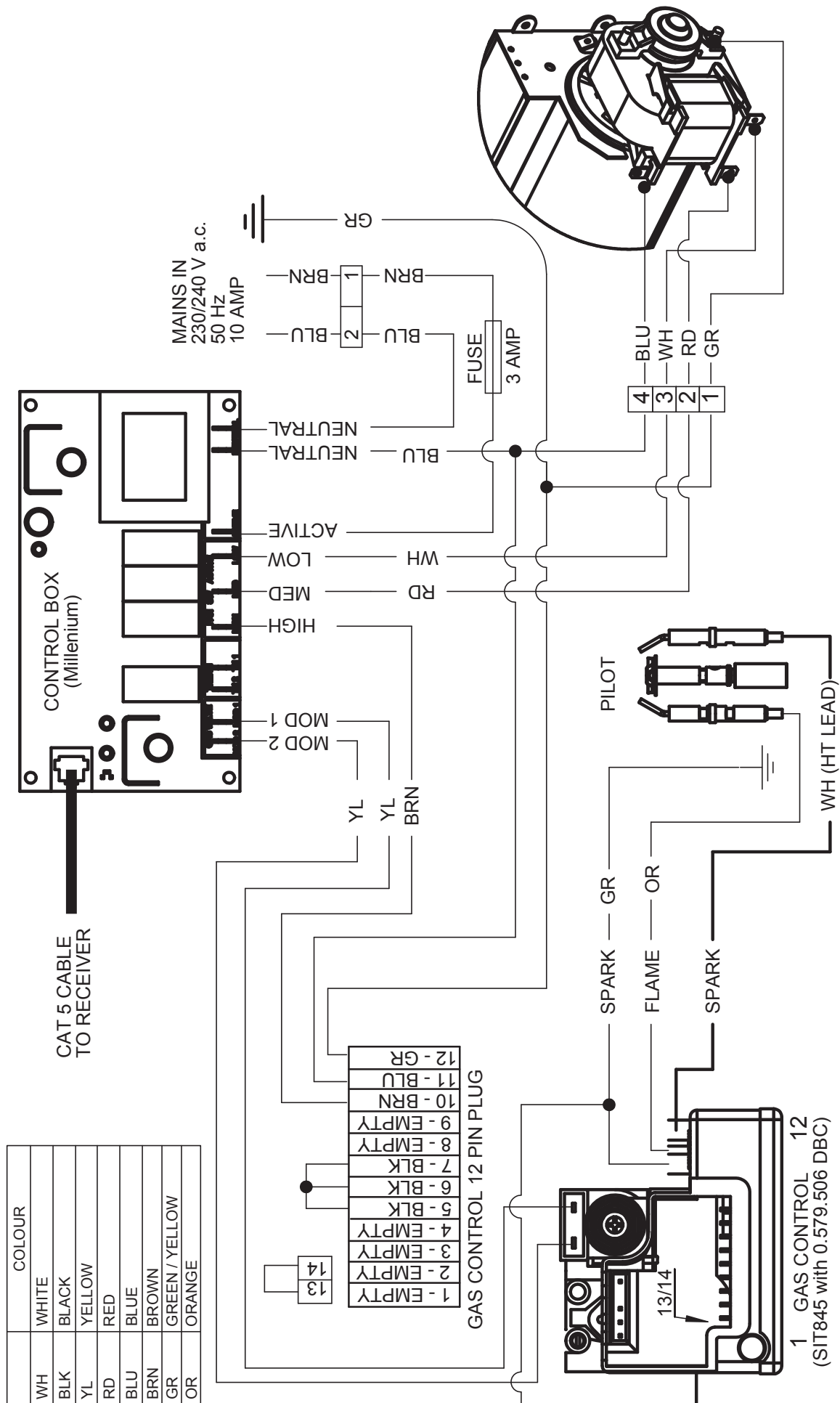
	NO	YES
1. Is the appliance positioned in a suitable location with regards to clearances?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the unit fixed in location?	<input type="checkbox"/>	<input type="checkbox"/>
3. Is the burn media installed and positioned correctly?	<input type="checkbox"/>	<input type="checkbox"/>
4. Have all gas connections been checked for leaks using a soapy water solution?	<input type="checkbox"/>	<input type="checkbox"/>
5. Have you instructed the owner of the correct operation of this appliance before leaving?	<input type="checkbox"/>	<input type="checkbox"/>
6. Have you left the operating instructions with the owner?	<input type="checkbox"/>	<input type="checkbox"/>
7. Have you removed all PVC plastic coating material?	<input type="checkbox"/>	<input type="checkbox"/>



Ensure all PVC plastic coating material is removed before operating the unit.

If you have answered NO to any of the above questions you MUST NOT allow the appliance to be operated until the item has been rectified.

WIRING DIAGRAM



Rinnai

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Rinnai has a Service and Spare Parts network with personnel who are fully trained and equipped to give the best service on your Rinnai appliance. If your appliance requires service, please call our National Help Line. Rinnai recommends that this appliance be serviced every 3 years.

Internet: www.rinnai.com.au E-mail: enquiry@rinnai.com.au

National Help Line

Tel: 1300 555 545* Fax: 1300 555 655*

**Cost of a local call higher from mobile or public phones.*

Hot Water Service Line

Tel: 1800 000 340

